or router, and various methods. The construction and operation of the terminals 10, 30-1~30-n and the servers 20-1~20-n is well known in the field and further explanation is thus not deemed necessary.

The searching and editing terminal 10 produces an advertising digital music file of a cooperating record corporation, distributes the advertising music file through the network N or searches for an illegally produced digital music file which is shared or distributed over the network, and collects and edits the searched music file.

The searching and editing terminal 10 includes a general hardware device(not shown) included in a computer system, such as a main processor, a network adapter, a display adapter, a main memory and an auxiliary memory, and an operating system(OS) and a program tool for extracting an original sound from a record and converting it into a digital music file, and a program tool for editing the digital music file. The specific construction and operation of the terminal 10 is well known in the field and further explanation is thus not deemed necessary.

Further, various music file sharing programs which are generally used through the communication network are installed at the searching and editing terminal 10 in order to search for the digital music files shared or distributed through the network N.

The music file sharing servers 20-1~20-n search another user's terminal connected to the network N for a corresponding digital music file according to requests from the music file user terminals 30-1~30-n, and connect the user terminals 30-1~30-n so as to enable the users to share the digital music files with each other.

The music file user servers 30-1~30-n operate to share the digital music files through the network N and exchange them through the user terminals 30-1~30-n. The music file user servers 30-1~30-n include general hardware devices(not shown) installed in a computer system, such as a main processor, a network adapter, a display adapter, a main memory and an auxiliary memory, and an operating system(OS) and at least one of music file sharing programs for sharing the music files between users through the network N.

Hereinafter, an operation sample of the present invention having the construction above will be described in detail.

Fig. 2 is a flowchart showing a method of preventing reduction of sales amount of records due to a digital music file illegally distributed through a communication network of this invention.

Referring to Fig. 2, a service provider for producing the advertising digital music files and distributing them, cooperates with a corresponding record corporation, and makes a service contract with the record corporation for preventing

the distribution of the illegally produced(or reproduced) digital music files derived from a record of the record corporation at step S10.

Then, the service provider produces an advertising digital music file using a well-known encoding program or music file-editing program at step S20.

As an example, a process for producing the advertising digital music file is shown in Fig. 3 and Fig. 4. Referring to Figs. 3 and 4, a wave file is extracted from a source record(e.g. tape or compact disc) using a program tool of "Gold Wave" produced by the programmer "Chris Craig", and then the extracted wave file is converted into a digital music file with a MP3 format.

As stated above, the digital music file generated by conversion of the wave file is compulsorily deteriorated or damaged in its sound quality by any means, such that it decreases the user's desire to listen and keep the music file, thus inducing the user listening it to purchase the formal record according to his or her preference.

For example, a method of deteriorating or damaging the digital music file in sound quality may include the functions of 1)inserting noise component such as a voice for publicity of a singer or performer in the music, 2)lowering a sampling rate of the digital music file to below that of an original music(typically, digital file with MP3 format has a sampling